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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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PILLSBURY WINTHROP, LLP
P.O. BOX 10500
MCLEAN, VA 22102

EXAMINER	
RAMIREZ, DELIA M	

ART UNIT	PAPER NUMBER
1652	

DATE MAILED: 10/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No.	Applicant(s)	
	09/963,668	RIEPING ET AL.	
	Examiner	Art Unit	
	Delia M. Ramirez	1652	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 13 September 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

a) ☒ The period for reply expires *3* months from the mailing date of the final rejection.

b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.

2. ☒ The proposed amendment(s) will not be entered because:

   (a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);

   (b) ☐ they raise the issue of new matter (see Note below);

   (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

   (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: *see attached*.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.

4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

5. ☒ The a)☐ affidavit, b)☐ exhibit, or c)☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: *see attached*.

6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

7. ☒ For purposes of Appeal, the proposed amendment(s) a)☒ will not be entered or b)☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

   The status of the claim(s) is (or will be) as follows:

   Claim(s) allowed: *none*.

   Claim(s) objected to: *none*.

   Claim(s) rejected: *1-2,4-7,9*.

   Claim(s) withdrawn from consideration: *none*.

8. ☐ The drawing correction filed on _____ is a)☐ approved or b)☐ disapproved by the Examiner.

9. ☐ Note the attached Information Disclosure Statement(s)(PTO-1449) Paper No(s). _____.

10. ☐ Other: _____

ADVISORY ACTION

1. Claims 1-2, 4-7, 9 are pending.

2. The request for amending claims 1, 6, 7, adding new claims 28-30, canceling claims 2, 4-5, 9, and arguments filed on 9/13/2004 under 37 CFR 1.116 in reply to the Final Action mailed on 4/13/2004 are acknowledged. The proposed amendments to the claims has been considered. While the proposed amendments to the claims (1) are deemed sufficient to overcome objections to claim 6 and 35 USC 112 first paragraph rejections of claims 1, 6-7, and (2) render 35 USC 112 second paragraph rejections of claims 4, 9 and 112 first paragraph rejections of claims 2, 4-5, 9 moot in view of their proposed cancellation, these amendments do not overcome the provisional double patenting rejections previously applied and raise new issues as discussed below. Thus, the proposed amendments to the claims will not be entered.

3. Amended claim 7 as proposed would be rejected under 35 USC 112, second paragraph to due to the recitation of "the process according to claim 1 wherein one or more E. coli genes ...are inactivated by one or more methods of mutagenesis.....during fermentation for the preparation of said L-amino acids" for the following reasons. It is unclear as to how one can inactivate a gene using the mutagenesis methods recited such that the inactivation only occurs during the fermentation stage. It is suggested that the term "during fermentation for the preparation of said L-amino acids" be deleted, or the term be amended to recite "the process according to claim 1 wherein one or more E. coli genes ...are inactivated by one or more methods of mutagenesis....in the E. coli strain used".

4. Proposed new claim 28 would be objected to due to the recitation of "the process of claim 1, wherein constituents of the fermentation broth and the biomass in its entirety or portions thereof being isolated as a solid product...". For clarity, it is suggested that the term be amended to recite "the process of claim 1, wherein constituents of the fermentation broth and the biomass in its entirety or portions thereof <u>are</u> isolated as a solid product...".

5. Proposed new claims 29-30 would be rejected under 35 USC 112, first paragraph, as failing to comply with the enablement requirement. Proposed new claims 29-30 are directed to a process which requires specific E. coli strains deposited as DSM 13761 and DSM 14150. Since these E. coli strains are essential to the claimed invention, they must be obtainable by a repeatable method set forth in the specification or otherwise be readily available to the public. These strains have not been shown to be publicly known and freely available. Accordingly, it is deemed that a deposit of these strains should have been made in accordance with 37 CFR 1.801-1.809. The enablement requirements of 35 U.S.C. § 112 may be satisfied by a deposit of these strains. While Applicants have deposited these E. coli strains as indicated in the specification, page 14, lines 15-26, there is no indication in the specification as to public availability. If the deposit was made under the terms of the Budapest Treaty, then an affidavit or declaration by Applicants, or a statement by an attorney of record over his or her signature and registration number, stating that the specific strain/vector has been deposited under the Budapest Treaty and that the strains will be irrevocably and without restriction or condition released to the public upon the issuance of the patent, would satisfy the deposit requirement indicated herein.

6. Amended claim 1 as proposed would remain provisionally rejected under the judicially created doctrine of obviousness-type double patenting rejection as being unpatentable over claim 35 of copending application No. 10/114073, claims 46-50 of copending application No. 10/114043, claims 12-14 of copending application No. 10/114048, and claim 31 of copending application No. 10/076416. It is noted that the claims over which obviousness-type double patenting rejections were made in regard to copending applications No. 10/076416, 10/114043, 10/114073 have changed in view of the fact that previous claims 9-10 of copending application No. 10/076416, claims 12-14 of copending application No. 10/114043, and claims 12-14 of copending application No. 10/114073 have been cancelled and new claims have been added in these copending applications. Applicants argue that these rejections should be withdrawn in view of the proposed amendments made to claim 1 in regard to the inactivation of the

pckA gene. According to Applicants, inactivation of the pckA gene is not anticipated or considered obvious by the disclosures of copending applications No. 10/114073, 10/114043, 10/114073, or 10/114048.

7. Applicant's arguments have been fully considered but are not deemed persuasive in regard to amended claim 1 as proposed. Claim 35 of copending application No. 10/114073 is directed in part to a process for producing an L-amino acid by culturing an Escherichia cell wherein said Escherichia cell has been modified to express the fruR gene at a reduced level compared to an unmodified Escherichia cell and wherein said modified Escherichia cell further comprises a pckA gene whose expression has been reduced or eliminated. Claims 46-54 of copending application No. 10/114043 are directed in part to a process for the production of L-amino acids wherein an Enterobacteria cell has been modified such that the dgsA gene has been deleted, the dgsA expression is reduced, or the activity of the dgsA gene product is reduced by mutation in the gene, and wherein said Enterobacteria cell is further modified such that the pckA gene is attenuated, deleted, or its expression reduced. Claim 31 of copending application No. 10/076416 is directed in part to a process for preparing an L-amino acid which comprises cultivating an Enterobacteria cell modified to attenuate the poxB gene, wherein said cell is further modified to reduce or eliminate the expression of the pckA gene. Claims 12-14 of copending application No. 10/114048 remain directed to a process for the production of an L-amino acid with an Enterobacteria cell modified such that the aceA gene is attenuated, wherein said cell is further modified such that the pckA gene is attenuated, switched off, or its expression reduced. As clearly indicated in the Final Action mailed on 4/13/2004, the specification of copending applications 10/114073, 10/114043, 10/076416, and 10/114048 specifically refer to E. coli as a preferred cell for practicing the claimed processes, and specifically refer to L-threonine, L-valine, and/or L-lysine as preferred L-amino acids to be produced by the claimed methods.

In regard to the argument that inactivation is not taught or suggested by the disclosures of copending applications No. 10/114073, 10/114043, 10/076416, and 10/114048, it is noted that claim 35 of

copending application No. 10/114073 and claim 31 of copending application No. 10/076416 specifically refer to the reduction or elimination of expression of the pckA gene, therefore anticipating inactivation of the pckA gene in claim 1 of the instant application. Also, the disclosures in copending applications No. 10/114048, 10/114073, 10/076416 and 10/114043, describe attenuation as reduction or switching off of the intracellular activity of an enzyme by inactivation of the gene, and refer to inactivation by mutations such as transitions, transversions, insertions and deletions. See paragraph 16, 42-44 in copending application No. 10/114048, paragraph 37, 68-70 in copending application No. 10/114043, paragraphs 16, 43-45 in copending application No. 10/114073, and paragraphs 18, 43-46 in copending application No. 10/076416. Therefore, amended claim 1 of the instant application as proposed would be considered obvious over claim 35 of copending application No. 10/114073, claims 46-50 of copending application No. 10/114043, claims 12-14 of copending application No. 10/114048, and claim 31 of copending application No. 10/076416.

8. The rejections previously applied are, therefore, maintained for the reasons of record in view of the non-entry of the proposed amendments.

9. For purposes of Appeal, the status of the claims is as follows:

Claim(s) allowed: NONE

Claims(s) objected to: NONE

Claim(s) rejected: 1-2, 4-7 and 9

Claim(s) withdrawn from consideration: NONE

10. Certain papers related to this application may be submitted to Art Unit 1652 by facsimile transmission. The FAX number is (703) 872-9306. The faxing of such papers must conform with the notices published in the Official Gazette, 1156 OG 61 (November 16, 1993) and 1157 OG 94 (December 28, 1993) (see 37 CFR 1.6(d)). NOTE: If Applicant submits a paper by FAX, the original copy should be

retained by Applicant or Applicant's representative. NO DUPLICATE COPIES SHOULD BE SUBMITTED, so as to avoid the processing of duplicate papers in the Office.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PMR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Delia M. Ramirez whose telephone number is (571) 272-0938. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Ponnathapura Achutamurthy can be reached on (571) 272-0928. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1234.

Delia M. Ramirez, Ph.D.
Patent Examiner
Art Unit 1652

DR
October 7, 2004

REBECCA E. PROUTY
PRIMARY EXAMINER
GROUP ~~1800~~ 1600